

Chemistry 222-General Chemistry II

Spring 2009-Dr. Nadine Szczepanski-ext 115, Julian 6; 243-3604 (home)
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Objectives: The objectives of this course are to gain a fundamental understanding of general chemistry principles, and to obtain basic laboratory skills widely used in chemistry.

Office Hours: I will be in my office at 9:30 AM on T, and 2:15 PM on Wednesday.
Appointments can be made for other times.

Text: Chemistry the Central Science, Brown, Lemay, Bursten, Tenth Edition
Laboratory Manual and Study Guide, Szczepanski

Lecture: Lectures will follow the text chapters indicated on p. 3 of this syllabus. The schedule on p. 3 is tentative. If need be, we will spend an extra day or so on a particular difficult chapter, or a day less on an easy one. Naturally, this may change the date quizzes and/or exams are given.

Homework: Homework assignments will be given. The homework is due at the **beginning** of class time on the dates shown on the syllabus. **Late homework will not be accepted.**

Quiz: Quizzes will be given on the days indicated on p. 2. The lowest quiz grade will be dropped. **No make-up quizzes will be given.**

Lab: The lab schedule appears on p. 4. Satisfactory completion of the lab is required to pass the course. Incomplete experiments must be finished within two weeks. Experiments can only be made up if arranged in advance. A lab report is due one week after the experiment is completed. If a report is not turned in, **THE LAB WILL BE CONSIDERED INCOMPLETE.** Your course grade will be decreased by one letter grade for every two incomplete labs. Lab notebooks and safety goggles are also required. **IF YOU ARE NOT PREPARED FOR LAB, YOU WILL NOT BE ALLOWED TO WORK IN LAB NOR WILL YOU BE ALLOWED TO MAKE UP THE LAB. YOU WILL RECEIVE A GRADE OF ZERO ON LABS FOR WHICH YOU ARE UNPREPARED.**

Final: The final exam will be comprehensive. It is scheduled for April 27 at 9 AM.

Attendance: Attendance is required for all labs and quizzes. Attendance at lecture is expected.

Grade: Anyone caught cheating will automatically fail the class. If you do not pass the exams and quizzes, you will not pass the class.

Ten sets of Homework @10 pts each	100 pts
Best 4 quizzes @ 125 pts each	500 pts
Final exam	180 pts
Eleven Labs @ 20 pts each	<u>220 pts</u>
	1000 possible points

850-1000 points=A
750-849 points =B
650-749 points =C
550-649 points =D
less than 550 points=F

Teaching Certification Standards:

This course meets the following Science Core Content Area Standards

1. Science as Inquiry- The competent science teacher understands scientific inquiry and has the ability to conduct scientific inquiry.
2. Technological Design- The competent science teacher understands the concepts, principles and processes of technological design.
4. Organisms and Ecosystems- The competent science teacher understands and can apply concepts that describe how living things interact with each other and with their environment.
- 5 Matter and Energy-The competent science teacher understands the nature and properties of energy in its various forms, and the processes by which energy is exchanged and/or transformed.
- 6 Force and Motion- The competent science teacher understands and applies the concepts that describe force and motion and the principles that explain them.
7. The Earth- The competent science teacher understands the dynamic nature of the Earth and recognizes that its features and structures result from natural processes.
9. Practices of Science- The competent science teacher understands and applies accepted practices and implications of science in contemporary and historical contexts.
11. Unifying concepts - The competent science teacher understands the major unifying concepts of all sciences (systems, order, and organization; evidence, models, and explanations; constancy change, and measurement; evolution and equilibrium; form and function), and how these concepts relate to other disciplines, particularly mathematics and the social sciences.
- 17 - Connections in Teaching Science-The competent science teacher can relate science to the daily lives and interests of students as well as to the larger framework of human endeavor

week of

Tuesday

T

Thursday

start 12:10

week of	Tuesday	T	Thursday
1/4/09	****	****	Intro/13
1/11/09	13	13(T)	13/HW
1/18/09	15/Ch 13 HW due	15(T)	15
1/25/09	15 Hw then QUIZ on ch13,15	quiz(T)15 HW due	16
2/1/09	16	16(T)	16/17
2/8/09	17	HW (T)	17/Ch 16 HW due
2/15/09	Ch 17 HW then QUIZ on ch 16-7	quiz(T)17 HW due	14
2/22/09	14	14(T)	14/HW 14
3/1/09	21/Ch 14 HW due	21(T)	21/21 HW
3/8/09	SPRING BREAK	SPRING BREAK	SPRING BREAK
3/15/09	review then QUIZ on ch 14,21	quiz(T)21 HW due	19
3/22/09	19	19(T)	HW Ch 19/20
3/29/09	20/ch 19 HW due	20 (T)	20/ Ch 20 HW
4/5/09	Quiz on ch 19-20/ch 20 HW due	25	25
4/12/09	25	12(T)	12
4/19/09	HW then Quiz Ch 25,12	quiz(T) Ch 25,12 HW due	FINALS

Chemistry 222 Laboratory, Spring 2009

Tentative Schedule

Read all experiments BEFORE coming to lab.

Complete all pre-lab review questions BEFORE beginning the experiment

Week of

1/4/09	No lab
1/11/09	Colligative Properties
1/18/09	Equilibrium.
1/25/09	Analysis of unknown acid/Buffer
2/1/09	Qualitative Analysis I part I
2/8/09	Qualitative Analysis I part II
2/15/09	Qualitative Analysis of Household Chemicals
2/22/09	Kinetics
3/1/09	Nuclear chem
3/8/09	Spring Break!
3/15/09	Recycling Polymer Lab
3/22/09	Recycling Polymer Lab, continued
3/29/09	Electrochemistry-Batteries
4/5/09	Easter break!
4/12/09	Organic Chemistry Reactions
4/19/09	Chemistry in Action

Students who are pregnant, or who become pregnant while taking this course MUST speak with the instructor about special health and safety needs.